



OPERATING INSTRUCTIONS

WIRELESS TUNER

WT-780
WT-781



Please follow the instructions in this manual to obtain the optimum results from this unit.
We also recommend that you keep this manual handy for future reference.

TOA Corporation

■ GENERAL DESCRIPTION

The TOA WT-780 (WT-781) is a VHF high band tuner employing a compressor/expander system noise reduction circuit to minimize the influence of high-frequency noise generated from digital equipment such as personal computers and word processors. It also features a dual (noise and tone) squelch system that allows the receiver to receive radio signals only from the microphone.

■ HANDLING PRECAUTIONS

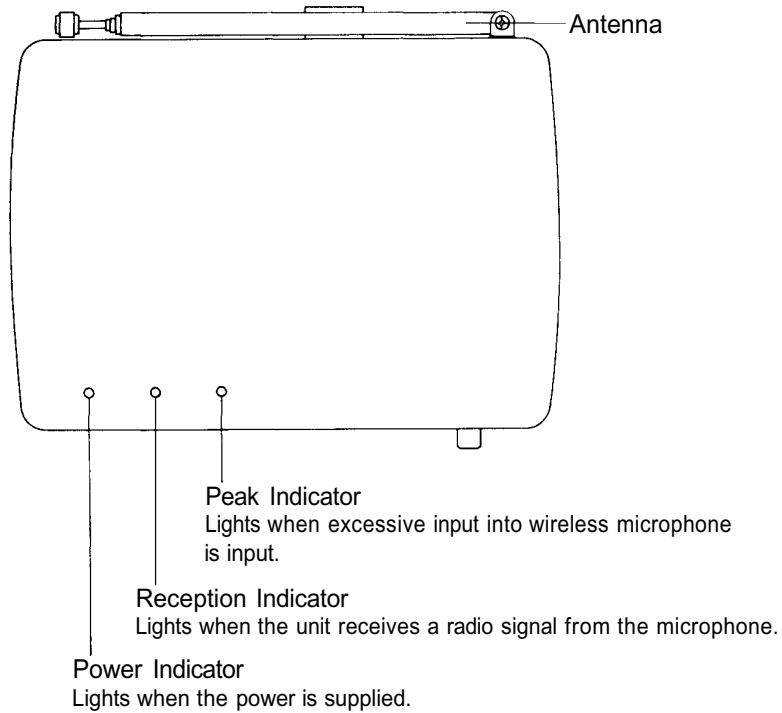
- Check for proper operating voltage of your tuner before use.
Supplied AC/DC adaptor must be used.
- Avoid installing the unit above heat generating equipment such as a power amplifier.
- To avoid severe electrical shocks and possible catastrophic damage, never open the unit nor touch its internal components.
- To clean the unit's exterior, wipe with a soft dry cloth. Never use benzine, thinner, or other solvents, which may damage the painted parts of the unit.

■ FEATURES

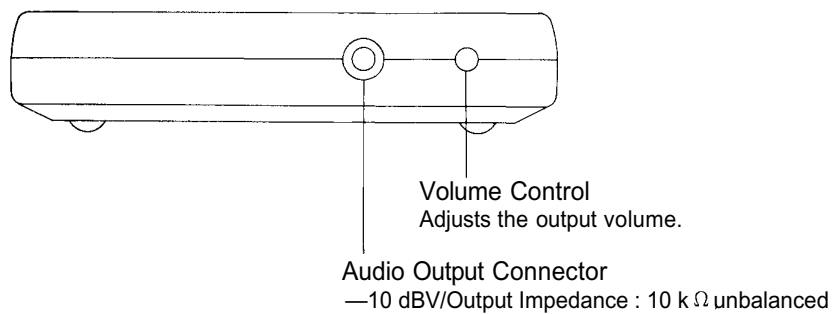
- A tone squelch prevents disturbing radio signals from producing noise when the wireless microphone is not in use.
- Wide dynamic range and less susceptibility to high frequency noise in space thanks to a compressor/expander circuit.
- Space-saving design and reliable operation.

■ NOMENCLATURE

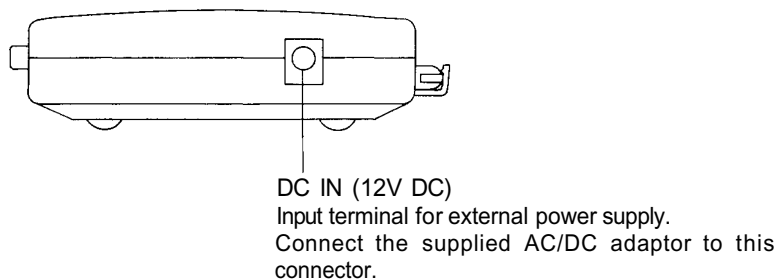
[Top View]



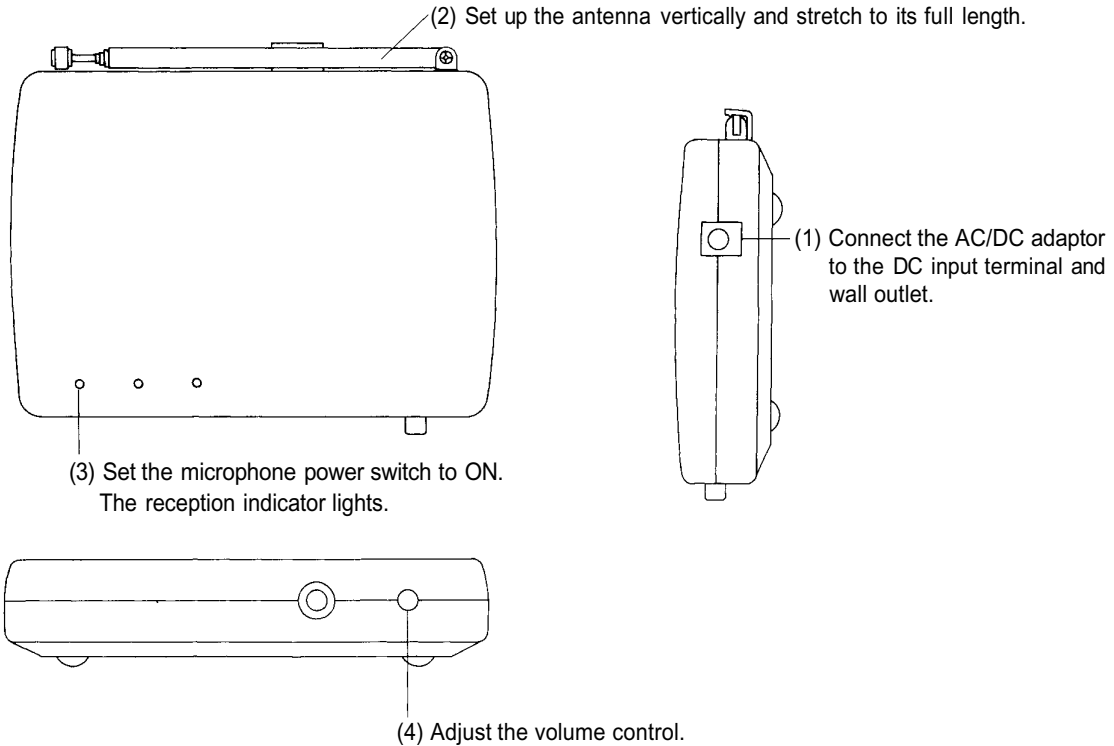
[Front View]



[Side View]



■ OPERATIONS



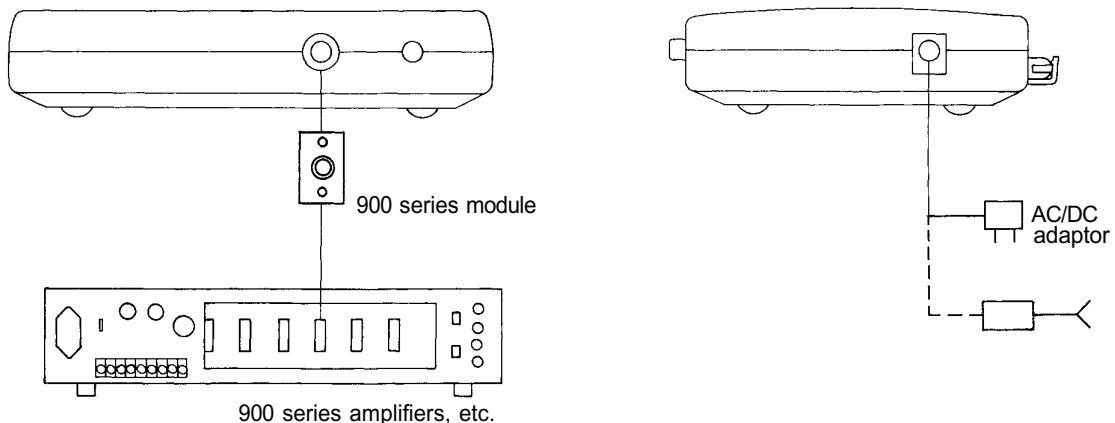
*Note on peak indicator

When the peak indicator lights frequently, your voice can be distorted at a microphone circuit. In such cases, move your mouth away from the microphone so that the peak indicator lights at a maximum level.

If the microphone is equipped with a sensitivity control, adjust the control so that the level indicator lights when spoken loud.

■ CONNECTIONS

When using with the 900 series amplifiers, connect the output of WT-780 (WT-781) with the following modules of 900 series.



■ INSTALLATION PRECAUTIONS

- Install the unit at the location accessible to the wall outlet easily.
- Install the tuner away from high frequency noise generating equipment such as fluorescent lamps and personal computers, whenever possible.
- Avoid installing a receiving antenna in close proximity to the steel frames of the building or lockers. The clearance between the antenna and the wall needs to be at least 30 cm (1 foot).

■ ADDITIONAL EXPLANATIONS

1. Squelch Circuit

In a receiver employing only a noise or carrier squelch, the squelch circuit is actuated and provides the output whenever the receiver receives the same RF carrier as a receiving frequency. This causes even a disturbing radio signal to be received provided its frequency is the same as the receiving frequency. As a result, it can happen that sound is suddenly heard from the speaker due to disturbing radio signal even when the wireless microphone's power switch is left OFF.

The squelch circuit of TOA's wireless systems consists of both the tone and noise squelches, and is not actuated if only same RF carrier as the receiving frequency is received. It is so designed as to be actuated and output a signal only when the received RF carrier contains a very exact pre-determined tone frequency component. Therefore, disturbing radio signals are rejected and the speaker can be kept completely quiet when the wireless microphone's power switch is set to OFF, ensuring reliable use in every application.

2. Frequency Indicators

Component frequency ratings are expressed in combinations of alphabetic and numeric characters, with letters substituted for all numbers to the left of the 1 MHz digit.

For example : C = 160 MHz F = 190 MHz
 D = 170 MHz G = 200 MHz
 E = 180 MHz H = 210 MHz

All numbers to the right of the 10 MHz digit are still expressed as numerals.

Therefore : D5432 = 175.432 MHz
 G7654 = 207.654 MHz

■ SPECIFICATIONS

WT-780 (for USA,UK,AUSTRALIA) WT-781 (for CANADA)

Power Requirements	120V AC, 60 Hz / 230-240V AC, 50 Hz / 240V AC, 50 Hz Supplied AC/DC adaptor must be used.
Power Consumption	3 W
DC Input	12V DC, 110 mA max.
Receiving Frequency	169.445 MHz~171.905 MHz (FCC Part 90/USA) 174.250 MHz~215.250 MHz (FCC Part 74/USA, D.O.C/CANADA) 173.8 MHz~175.0 MHz (MPT1345/UK) 202.1 MHz~203.7 MHz (DOC 60 AUSTRALIA)
Receiving Sensitivity	Under 20 dB μ V(S/N : 75 dB/Deviation : 15 kHz) (S/N : 80 dB/Deviation : 40 kHz)
Squelch Sensitivity	Approx. 14 dB μ V
Frequency Response	100Hz~12kHz \pm 2dB
Residual Noise	Less than 30 μ V(8 μ V : A-weight)
Antenna	Telescopic antenna
Audio Output	—10dBV, 10 Ω , unbalanced
Operating Temperature	—10°C~50°C (14°F~122°F)
Dimensions	140 X 31 X 108.4mm (5.51" X 1.22" X 4.27")
Weight	Approx. 260g. (0.572 lb.)
Finish	Dark gray

Overall System Performance (WT-780/WT-781 ,WM-270/WM-271)

Transmission Distance	30~60m (100~200 feet)
Dynamic Range (SNR)	Better than 90 dB (102 dB : A-weight)(60 dB μ V, 15 kHz Deviation) Better than 95 dB (102 dB : A-weight)(60 dB μ V, 40 kHz Deviation)
Distortion	Under 1%

*Specifications are subject to change without notice.

● Accessories

AC/DC adaptor	1
AD-780 120V AC 60 Hz (USA,CANADA)	
AD-781 230-240V AC 50 Hz (UK)	
AD-782 240V AC 50 Hz (AUSTRALIA)	
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